

3574 DIRECTIONS 26

F O R

R A I S I N G F L A X .

Published by Order of

The Commissioners and Trustees for FISHERIES, MANUFACTURES, and IMPROVEMENTS, in SCOTLAND.

For the benefit of the Country.

Made out by some of the Trustees Officers, of great practice and experience in Flax-raising.

1763
1786
EDINBURGH, MDCCLXIII.

Copies hereof are distributed *gratis*, at the Trustees office in Edinburgh, and at every Linen stamp-office in Scotland.

DIRECTOR'S

FOR

REGISTERING

Published by Order of

The Commissioners and Trustees for His
Majesty, Manufactures, and In-
ventions, in Scotland.

For the benefit of the Country.

Made one by the Commissioners of
His Majesty's Manufactures, and In-
ventions, in Scotland.



EDINBURGH. MDCCLXXII.

Copies heretofore are distributed gratis, at the Trustees
office in Edinburgh, and at every Town where there is
an office.



D I R E C T I O N S

F O R

R A I S I N G F L A X.

Of the choice of the SOIL, and PREPARING the GROUND for Flax.

A Skilful flax-raiser always prefers a free open deep loam, and all grounds that produced the preceding year a good crop of turnip, cabbage, potatoes, barley, or broad clover; or has been formerly laid down rich, and kept for some years in pasture.

A clay soil, the second or third crop after being limed, will answer well for flax; provided, if the ground be still stiff, that it be brought to a proper mould, by tilling after harvest, to expose it to the winter frosts; and that a little sharp dung, such as pigeons, sheep, or horse dung, or ashes, be spread upon the ground immediately before sowing.

All new grounds produce a strong crop of flax, and pretty free of weeds. When a great many mole-heaps appear upon new ground, it answers the better for flax after one tilling.

Flax-seed ought never to be sown on grounds that are either too wet or dry; but on such as retain

a natural moisture : and such grounds as are inclined to weeds, ought to be avoided, unless prepared by a careful summer-fallow.

Before sowing, the bulky clods should be broken, or carried off the ground ; and stones, quickenings, and every other thing that may hinder the growth of the flax, should be removed.

Of the choice of LINTSEED.

THE brighter in colour, and heavier the seed is, so much the better : that which when bruised appears of a light or yellowish green, and fresh in the heart, oily and not dry, and smells and tastes sweet, and not fusty, may be depended upon.

Dutch seed of the preceding year's growth, for the most part, answers best ; but it seldom succeeds if kept another year. It ripens sooner than any other foreign seed. *Philadelphia* seed produces fine lint and few bolls, and answers best in wet cold soils. *Riga* seed produces coarser lint, and the greatest quantity of seed. *Scots* seed, when well winned and kept, and changed from one kind of soil to another, sometimes answers pretty well ; but should be sown thick, as many of its grains are bad, and fail. It springs well, and its flax is sooner ripe than any other ; but its produce afterwards is generally inferior to that from foreign seed.

Of

Of SOWING *Lintseed*.

THE quantity of lintseed sown, should be proportioned to the condition of the soil; for if the ground be in good heart, and the seed sown thick, the crop will be in danger of falling before it is ready for pulling. From eleven to twelve pecks *Linlithgow* measure of *Dutch* or *Riga* seed; is generally sufficient for one *Scots* acre; and about ten pecks of *Philadelphia* seed, which being the smallest grained, goes farthest.

The time for sowing lintseed is from the middle of *March* to the end of *April*, as the ground and season answers,

It ought always to be sown on a dry bed.

Of WEEDING *Flax*.

IT ought to be weeded when the crop is about four inches long. If longer deferred, the weed-ers will so much break and crook the stalks, that they will never perhaps recover their straightness again; and when the flax grows crooked, it is more liable to be hurt in the rippling and swingling.

Quickening grass should not be taken up; for, being strongly rooted, the pulling of it always looses a deal of the lint.

If there is an appearance of a settled drought, it is better to defer the weeding, than by that operation to expose the tender roots of the flax to the drought.

How soon the weeds are got out, they ought to be carried off the field, instead of being laid in the furrows, where they often take root again, and at any rate obstruct the growth of the flax in the furrows.

Of PULLING Flax.

WHen the crop grows so short and branchy, as to appear more valuable for seed than flax, it ought not to be pulled before it be thoroughly ripe; but if it grows long and not branchy, the seed should be disregarded, and all the attention given to the flax. In the last case it ought to be pulled after the bloom has fallen, when the stalk begins to turn yellow, and before the leaves fall, and the bolls turn hard and sharp-pointed.

When the stalk is small, and carries few bolls, the flax is fine; but the stalk of coarse flax is gross, rank, branchy, and carries many bolls.

When flax has fallen and lies, such as lies ought to be immediately pulled, whether it has grown enough or not, as otherwise it will rot altogether.

When parts of the same field grow unequally, so that some parts are ready for pulling before other parts; only what is ready should be pulled, and the rest should be suffered to stand till ready.

The flax-raiser ought to be at pains to pull, and keep by itself, each different kind of lint which he finds in his field; what is both long and fine, by itself; what is both long and coarse, by itself; what is both short and fine, by itself; what is both short and coarse, by itself; and in like manner every

other kind by itself that is of the same size and quality. If the different kinds be not thus kept separate, the flax must be much damaged in the watering, and the other succeeding operations.

What is commonly called under-growth, may be neglected as useless.

Few persons that have seen flax pulled, are ignorant of the method of laying it in handfuls across other; which gives the flax sufficient air, and keeps the handfuls separate and ready for the rippler.

*Of STACKING up Flax during the winter,
and WINNING the Seed.*

IF the flax be more valuable than the seed, it ought by no means to be stacked up; for its own natural juice assists it greatly in the watering: whereas if kept long unwatered, it loses that juice, and the harle adheres so much to the boon, that it requires longer time to water, and even the quality of the flax becomes thereby harsher and coarser. Besides, the flax stacked up over-year, is in great danger from vermin and other accidents; the water in spring is not so soft and warm as in harvest; and near a year is thereby lost of the use of the lint: but if the flax be so short and branchy as to appear most valuable for seed, it ought, after pulling, to be stooked and dried upon the field, as is done with corn, then stacked up for winter, rippled in spring, and after sheeling, the seed should be well cleaned from bad seeds, &c.

Of RIPPLING Flax.

AFTER pulling, if the flax is to be regarded more than the seed, it should be allowed to lie some hours upon the ground to dry a little, and so gain some firmness, to prevent the skin or harle, which is the flax, from rubbing off in the rippling; an operation which ought by no means to be neglected, as the bolls, if put into the water along with the flax, breed vermin there, and otherwise spoil the water. The bolls also prove very inconvenient in the grassing and breaking.

The handfuls for rippling should not be great, as that endangers the lint in the rippling-comb.

After rippling, the flax raiser will perceive, that he is able to assort each size and quality of the flax by itself more exactly than he could before.

Of WATERING Flax.

A Running stream wastes the lint, makes it white, and frequently carries it away. Lochs, by the great quantity and motion of the water, also waste and whiten the flax, though not so much as running streams. Both rivers and lochs water the flax quicker than canals.

But all flax ought to be watered in canals, which should be digged in clay ground if possible, as that soil retains the water best: but if a firm retentive soil cannot be got, the bottom or sides of the canal, or both the bottom and sides, may be lined with clay; or, instead of lining the sides with clay, which might

fall down, a ditch may be dug without the canal, and filled with clay, which will prevent both extraneous water from entering, and the water within from running off.

A canal of forty feet long, six broad, and four deep, will generally water the growth of an acre of flax.

It ought to be filled with fresh soft water from a river or brook, if possible, two or three weeks before the flax is put in, and exposed all that time to the heat of the sun. The greater way the river or brook has run, the softer, and therefore the better will the water be. Springs, or short runs from hills, are too cold, unless the water is allowed to stand long in the canal. Water from coal or iron, is very bad for flax. A little of the powder of galls thrown into a glass of water, will immediately discover if it comes from minerals of that kind, by turning it into a dark colour, more or less tinged in proportion to the quantity of vitriol it contains.

The canal ought not to be under any shade; which, besides keeping the sun from softening the water, might make part of the canal cooler than other parts, and so water the flax unequally.

The flax raiser will observe, when the water is brought to a proper heat, that small plants will be rising quickly in it, numbers of small insects and reptiles will be generating there, and bubbles of air rising on the surface. If no such signs appear, the water must not be warm enough, or is otherwise unfit for flax.

Moss holes, when neither too deep nor too shallow,

low, frequently answer well for watering flax, when the water is proper, as before described.

The proper season for watering flax is from the end of *July* to the end of *August*.

The advantage of watering flax as soon as possible, after pulling, has been already mentioned.

The flax being sorted after rippling, as before mentioned, should next be put up in beets, never larger than a man can easily grasp with both his hands, and tied very slack, with a band of a few stalks.

The beets should be put into the canals slope-ways, or half standing upon end, the root-end uppermost. Upon the crop-ends, when uppermost, there frequently breeds a deal of vermin, destructive of the flax, which is effectually prevented by putting the crop-end downmost.

The whole flax in the canal ought to be carefully covered from the sun with divots; the grassy side of which should be next the flax, to keep it clean. If it is not thus covered, the sun will discolour the flax, though quite covered with water. If the divots are not weighty enough to keep the flax entirely under water, a few stones may be laid above them. But the flax should not be pressed to the bottom.

When the flax is sufficiently watered, it feels soft to the grip, and the harle parts easily with the boon or show, which last is then become brittle, and looks whitish. When these signs are found, the flax should be taken out of the water, beet after beet; each gently rinsed in the water, to cleanse it of the nastiness which has gathered about it in the

the

the water; and as the lint is then very tender, and the beet slackly tied, it must be carefully and gently handled.

Great care ought to be taken that no part is overdone; and as the coarsest waters soonest, if different kinds be mixed together, a part will be rotted when the rest is not sufficiently watered.

When lint taken out of the canal is found not sufficiently watered, it may be laid in a heap, for twelve, eighteen, or twenty-four hours, which will have an effect like more watering; but this operation is nice, and may prove dangerous in unskilful hands.

After the flax is taken out of the canal, fresh lint should not be put a second time into it, until the former water be run off, and the canal cleaned, and supplied with fresh water.

Of GRASSING Flax.

Short heath is the best field for grassing flax, as, when wet, it fastens to the heath, and is thereby prevented from being blown away by the wind. The heath also keeps it a little above the earth, and so exposes it the more equally to the weather. When such heath is not to be got, links, or clean old lee ground is the next best. Long grass grounds should be avoided, as the grass growing through the lint frequently spots, tenders, or rots it; and grounds exposed to violent winds should also be avoided.

The flax, when taken out of the water, must be spread very thin upon the ground; and being then

very

very tender, it must be gently handled. The thinner it is spread the better, as it is then the more equally exposed to the weather. But it ought never to be spread during a heavy shower, as that would wash and waste the harle too much, which is then excessively tender, but soon after becomes firm enough to bear the rains, which, with the open air and sunshine, cleans, softens, and purifies the harle to the degree wanted, and makes it blister from the boon. In short, after the flax has got a little firmness by being a few hours spread in dry weather, the more rain and sunshine it gets the better.

The skilful flax-raiser spreads his first row of flax at the end of the field opposite to the point from whence the most violent wind commonly comes, placing the root-ends foremost; he makes the root ends of every other row overlap the crop-ends of the former row three or four inches, and binds down the last row with a rope; by which means the wind does not easily get below the lint to blow it away: and as the crop-ends are seldom so fully watered as the root-ends, the aforesaid overlapping has an effect like giving the crop-ends more watering. Experience only can fully teach a person the signs of flax being sufficiently grassed: When it is of a clearer colour than formerly; the harle is blistered up, and easily parts with the boon, which is then become very brittle. The whole should be sufficiently grassed before any of it is lifted; for if a part be lifted sooner than the rest, that which remains is in great danger from the winds.

A dry day ought to be chosen for taking up the flax; and if there is no appearance of high wind, it should be loosed from the heath or grass, and left loose for some hours, to make it thoroughly dry.

As a great quantity of flax can scarcely be all equally watered and grassed, and as the different qualities will best appear at lifting the flax off the grass; therefore at that time each different kind should be gathered together, and kept by itself, that is, all of the same colour length and quality.

The smaller beets the lint is made up in, the better for drying, and the more convenient for stacking, housing, &c.; and in making up these beets, as in every other operation upon flax, it is of great consequence, that the lint be laid together as it grew, the root-ends together, and the crop-ends together.

Of KEEPING Flax after it is grassed.

Nothing needs be said here, but that if the flax is to be stacked, it should be set in an airy place, upon a dry foundation, such as pob-middings, or the like, and well covered from the weather; and if housed, the floor must be dry, and the house well aired and water-tight.

GENERAL REMARKS.

Persons unskilful in flax-raising frequently neglect altogether the sorting of the flax, which
ough

ought carefully to be done at the three following different times, to wit, when pulling, after rippling, and when lifting it off the grafs; the consequence of which neglect is, that very different kinds being mixed together, it can neither be watered, grassed, nor scutched equally. They neither prepare proper canals nor water. They make the beets for watering a great deal too large, bind them very hard, and compress all their lint so close together in the water, trampling it down to the bottom, and putting large stones, seals, or logs above it, that the hearts of the beets cannot be half watered, or not at all, when some of it is perhaps too much done. They frequently take it out of the water after it has been there a certain time, without examining whether it be underdone or overdone. They lay it too thick upon the grafs, and upon long grassy meadows, by which means some of it is tendered and rotted. In taking it off the field, they lay root-ends and crop-ends together, or as is commonly called, heads and thraws. Lint so managed must come out very ill in the dressing; and the fault is generally, but very unjustly, laid to the lint-mill, which must destroy what is well watered before it can clean the ill-watered part of the same handfull. And thus it happens, that the ends are frequently beat away in the scutching, when the middle is not well cleaned, the ends of a beet being well watered, perhaps too much so, when the heart of the beet has scarce felt the water. Such inequality in the watering of the lint appears very remarkably as it lies upon the field, the middle of the rows then generally appearing of an higher colour than either of the ends.

g
,
e
g
,
.
r
y
r
d
t
r
n
r
-
.
g
-
y
-
-
e
e
d
e
e
e
-
e
h
y
f
.